



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,951	02/18/2004	James R. Easterday	KOL-10-5563-C1	2317

27422 7590 03/01/2006

DRIGGS, LUCAS, BRUBAKER & HOGG CO. L.P.A
38500 CHARDON ROAD
DEPT. KOL
WILLOUGHBY HILLS, OH 44094

EXAMINER

SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
----------	--------------

1742

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,951

Applicant(s)

EASTERDAY ET AL.

Examiner

John P. Sheehan

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 to 6 are rejected under 35 U.S.C. 102(b) as anticipated by Beyer et al. (Beyer, US Patent No. 4,019,928, cited in the IDS submitted February 18, 2004).

Beyer teaches the claimed composition for treating steel parts wherein the composition comprises the claimed alkali metal cyanates and alkali (i.e. sodium and potassium) carbonate, including a range that encompasses the range of cyanate recited in applicants' claims 1 to 5 (column 2, lines 34 to 43). Beyer also teaches the claimed ratio of potassium to sodium recited in applicants' claim 6 (column 2, lines 44 to 50). The claims do not distinguish over Beyer.

With respect to the claim language, "wherein the composition is molten and homogenous at temperatures between 750⁰F and 950⁰F", it is the Examiner's position that this is an inherent property of the claimed composition, in that applicants, when adding this language to the claims in applicants' parent application (10/002282) acknowledged that this is an inherent property of the claimed composition.

Claim I has been amended to state certain inherent properties of the composition, the amendments are not made to change the scope of the claims. (see the

parent application, the response submitted September 17, 2003, page 5, paragraph 2, lines 1 and 2)

3. Claims 1 to 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaucher et al. (Gaucher, US Patent No. 3,912,547, cited in the IDS submitted February 18, 2004).

Gaucher teaches a specific embodiment of the claimed composition for treating steel parts wherein the composition comprises the claimed alkali metal cyanates and alkali (i.e. sodium and potassium) carbonate, wherein the cyanate concentration and the alkali metal ratio are encompassed by the ranges recited in applicants' claims 1 to 6 (e.g. column 6, Example V). The claims do not distinguish over the teachings of Gaucher.

Again, with respect to the claim language, "wherein the composition is molten and homogenous at temperatures between 750⁰F and 950⁰F", it is the Examiner's position that this is an inherent property of the claimed composition, in that applicants, when adding this language to the claims in applicants' parent application (10/002282) acknowledged that this is an inherent property of the claimed composition.

Claim I has been amended to state certain inherent properties of the composition, the amendments are not made to change the scope of the claims. (see the parent application, the response submitted September 17, 2003, page 5, paragraph 2, lines 1 and 2)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1742

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 to 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Beyer or Gaucher each taken view of each of Blas et al. (Blas, US Patent No. 4,184,899, cited in the IDS submitted February 18, 200) or Caubet (US Patent NO. 3,321,338, cited in the IDS submitted February 18, 2004).

As set forth above in the rejections under 35 USC 102(b) Beyer and Gaucher each teach the composition recited in applicants' process claims 7 to 14.

Beyer teaches that the process of nitriding with a fused bath takes place on ferrous metals (e.g. steel), wherein the temperature is from 500 to 650⁰C (932 to 1202⁰F) (column 2, lines 59 to 63), which overlaps the temperature range recited in applicants' claims 7 and 14.

Gaucher teaches that the process of nitriding with a fused bath takes place on ferrous metals (e.g. steel), wherein the temperature is from 450 to 600⁰C (842 to 1112⁰F) (column 1, lines 5 to 10 and column 4, lines 55 to 60), which overlaps the temperature range recited in claims applicants' 7 and 14.

Blas and Caubet teach that stainless steel, including austenitic stainless steel can be nitrided by using a fused bath containing cyanate and alkali carbonate in order to increase the wear resistance of the stainless steel (Blas, column 1, lines 7 to 9 and 15 to 16; column 2, lines 20 to 28 and Table 1; and Caubet, column 1, lines 26 to 35 and 50 to 57).

Art Unit: 1742

Each of Beyer and Gaucher differ from the claims in that Beyer and Gaucher do not teach the exact temperature range or the workpiece as being stainless steel.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the temperature range of the fused bath at immersion taught by each of Blas and Caubet overlaps the instantly temperature range and therefore each of Blas and Caubet is considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

“The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”, In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

With respect to the use of stainless steel, one of ordinary skill in the art would have found the invention to have been obvious because one of ordinary skill in the art would have considered Beyer's and Gaucher's disclosures regarding steel to encompass stainless steel and would have been motivated to treat stainless steel to increase wear resistance as taught by each of Blas and Caubet.

Double Patenting

Terminal Disclaimer

6. The terminal disclaimer filed on December 20, 2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of US Patent No. 6,746,546 has been reviewed and is accepted. The terminal disclaimer has been recorded. Accordingly, the rejection of claims 1 to 14 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,746,546 has been overcome.

Response to Arguments

7. Applicant's arguments filed December 20, 2005 have been fully considered but they are not persuasive.

Applicants, citing MPEP 2144.05, acknowledge that it is up to the applicants(s) to rebut a prima facie case of obviousness

“ . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).”

Applicants, citing two sections of the specification that explain the reason for the claimed high and low cyanate ion concentrations, argue that in view of the two cited sections of sections of the specification applicants have provided the requisite showing of unexpected results. The Examiner is not persuaded. “It is well settled that unexpected results must be established by factual evidence. Mere argument or conclusory statements in the specification do not suffice.” *In re Deblauwe*, 222 USPQ

Art Unit: 1742

191, 196 (Fed. Cir. 1984). Mere lawyer's arguments and conclusory statements in the specification, unsupported by objective evidence, are insufficient to establish unexpected results." In re Wood, Whittaker, Stirling and Ohta, 199 USPQ 137, 140 (CCPA 1978).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

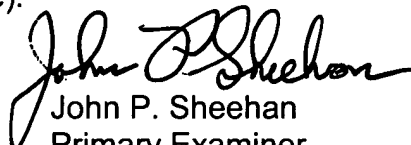
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

Art Unit: 1742

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John P. Sheehan
Primary Examiner
Art Unit 1742

jps